sequence is an FRI orthologue obtainable from a plant species other than Arabidopsis thaliana.

- 9. A nucleic acid as claimed in claim 5 wherein the variant sequence is a derivative of the FRI nucleotide sequence selected from the group consisting of any of:
- (i) the sequence of Fig 4;
- (ii) the sequence of Fig 5;
- (iii) bases 362-2188 inclusive of Fig 5;

or is degeneratively equivalent to any of these. by way of one or more of addition, insertion, deletion or substitution of the FRI nucleotide sequence by way of one or more of addition, insertion, deletion, or substitution of the FRI nucleotide sequence.

10. An isolated nucleic acid which comprises a sequence which the complement of the FRI or variant nucleotide sequence of claim 1.

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- 12. A process for producing a nucleic acid as claimed in claim 9 which process comprises the step of modifying a FRI nucleotide sequence selected from the group consisting of any of:
- (i) the sequence of Fig 4;
- (ii) the sequence of Fig 5;
- (iii) bases 362-2188 inclusive of Fig 5; or is degeneratively equivalent to any of these by way of one or more of addition, insertion, deletion or substitution of the FRI nucleotide sequence.
- 13. A method for identifying or cloning a nucleic acid obtainable from the FRI locus of a plant, which nucleic acid encodes a polypeptide which is capable of specifically altering the flowering time of a plant into which the nucleic acid is introduced, which method employs a probe or primer of

A method for determining the presence of a nucleic acid 14. A method for determining the presence of a nucleic acid which nucleic acid of a plant, which finally of a plant, of specifically obtainable from the FRI locus canable of specifically obtainable and mannifer and specifically obtainable and mannifer and specifically obtainable and mannifer and specifically acid oncalnable from the fall rocus of a plant, which is capable of specifically encodes a polypeptide which is capable of specifically encodes a polypeptide which the flowering time of a plant context of a high and altering the flowering the reasonable context of a land altering altering increases a research of a might be a context of a might be altering increases. altering the flowering time of a plant into which the plant, acid is introduced within a probe or primer of claim in acid is method employed. claim 11. which method employs a probe or primer of claim 1/2. A method as claimed in claim 14, which method comprises the steps or:

(a) providing a preparation of nucleic acid from a plant cell;

(b) providing a preparation of nucleic acid from a plant cell;

(c) providing a preparation of nucleic acid from a plant cell;

(d) providing a preparation of nucleic acid from a plant cell; (a) providing a nucleic acid molecule which is a probe or (b) providing a nucleic acid having a common of at load acid molecule which is a probe or acid molecule which is a problem or acid molecule which is a probl (D) providing a nucleic acid having a sequence is nresent in primer, said nucleic in length which semicine is nresent in the series of acid having a sequence is nresent in primer, said nucleic acid having a sequence is nresent in the semicine in length which semicine is not acid having a sequence of at least about the sequence of a nucleic acid having a sequence of at least about the sequence of at least about the sequence of a nucleic acid having a a nucleic acid havi primer, said nucleic acid naving a sequence is present in which sequence is present in length, which sequence or a complement the real nucleotides in length, the real nucleotides in the nucleotides in the real nucleotides in the real nucleotides in the n The the FRI nucleotide sequence or a complement thereof and either the from the grown consisting of any of. the steps of: 15. selected from the group consisting of any of: or these, with said or these, with said any or these, with said preparation with said preparation with said preparation with said preparation which is a cid in said preparation which is a cid in said preparation.

(c) contacting nucleic acid molecule under conditions for hybridisation. (c) contacting nucleic acid in said reparation with said and, in nucleic acid molecule under conditions for hybridisation, in nucleic acid molecule under acid reprint if record in nucleic acid molecule acid molec or is degeneratively equivalent to any of these (iii) bases 362-2188 inclusive of Fig 5; (i) the sequence of Fig 4; (ii) the sequence of Fig 5; mucher acru muleic acid variant if present by its

(d) identifying a nucleic acid variant if present in presen 16. A method as claimed in claim 14, which method comprises nybridisation with said nucleic acid molecule. the steps of a preparation of nucleic acid from a plant cell;

(a) providing a preparation of nucleic acid more or a (D) providing a pair or nucleic acid molecule primer, said

for PCR, at least commons of at least common of at least commons of at least common of at leas TOY PUR, at least one of at least about they the portage primer having a sequence is negative in a trace the primer having a sequence is negative in language. primer naving a sequence of action in either the FRI
in length, which sequence of a complement the rest of a complement t In rength, whitch sequence as complement thereof and selected from nucleotide sequence of any of. the steps of: the group consisting of any of:

- (i) the sequence of Fig 4:/
- (ii) the sequence of Fig/5;
- (iii) bases 362-2188 inclusive of Fig 5;
- or is degeneratively/equivalent to any of these
- (c) contacting nucleic acid in said preparation with said primers under conditions for performance of PCR,
- (d) performing PCR and determining the presence or absence of an amplified PCR product.
- 18. A recombinant vector which comprises the nucleic acid of claim 1.
- 19. A vector as claimed in claim 18 wherein the nucleic acid comprised in the vector is further capable of modulating VRN2 and/or FLC expression in a plant in which the nucleic acid is transcribed.
- 20. A vector as claimed in claim 18 wherein the nucleic acid is operably linked to a promoter for transcription in a host cell, wherein the promoter is optionally an inducible promoter.
- 21. A vector as claimed in claim 18 which is a plant vector.
- 22. A method which comprises the step of introducing the vector of claim 18 into a host cell, and optionally causing or allowing recombination between the vector and the host cell genome such as to transform the host cell.
- 23. A host/cell containing or transformed with a heterologous nucleic acid of claim 1.
- 26. A transgenic plant which is obtainable by the method of claim 25, or which is a clone, or selfed or hybrid progeny or other descendant of said transgenic plant,

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which in each case includes the plant cell containing or transformed with a heterologous nucleic acid obtainable from the FRI locus of a plant, which nucleic acid encodes a polypeptide which is capable of specifically altering the flowering time of a plant into which the nucleic acid is introduced.

- 27. A plant as claimed in claim 26 which is selected from the group consisting of: sugar beet; a Brassica such as cauliflower, broccoli, cabbage, spinach, curly kale, *B. Napus;* potato; lettuce; a culinary herb.
- 28. A part of propagule from a plant as claimed in claim 26.
- 29. An isolated polypeptide which is encoded by the FRI nucleotide sequence of claim 1.



31. A polypeptide as claimed in claim 29 which is a fragment of the polypeptide in Figure 6.



- 32. A method of making the polypeptide of claim 29, which method comprises the step of causing or allowing expression from a nucleic acid obtainable from the FRI locus of a plant, which nucleic acid encodes a polypeptide which is capable of specifically altering the flowering time of a plant into which the nucleic acid is introduced in a suitable host cell.
- 34. A polypeptide which comprises the antigen-binding site of the antibody of claim 33.
- 35. A method for influencing or affecting flowering time in a plant, which method comprises the step of causing or allowing expression of a nucleic acid obtainable from the FRI locus of a plant, which nucleic acid encodes a polypeptide which is capable of specifically altering the flowering time of a plant

into which the nucleic acid is introduced within the cells of the plant, following an earlier step of introducing the nucleic acid into a cell of the plant or an ancestor thereof.

36. A method as claimed in claim 35 for delaying flowering time in a plant, wherein the nucleic acid which comprises an FRI nucleotide sequence which encodes the polypeptide of Fig. 6.

- 37. A method as claimed in claim 35 for accelerating flowering time in a plant, which method comprises any of the following steps of:
- (i) causing or allowing transcription from a nucleic acid obtainable from the FRI locus of a plant, which nucleic acid encodes a polypertide which is capable of specifically altering the flowering time of a plant into which the nucleic acid is introduced in the plant such as to reduce FRI expression by an antisense mechanism;
- (ii) causing or allowing transcription from a nucleic acid which is capable of delaying the flowering time and thereby extending a vegetative phase in the plant or a part thereof such as to reduce FRI expression by co-suppression; (iii) use of nucleic acid encoding a ribozyme specific for a nucleic acid obtainable from the FRI locus of a plant, which nucleic acid encodes a polypeptide which is capable of specifically altering the flowering time of a plant into which the nucleic acid is introduced.

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39. A method as claimed in claim 35 which further comprises use of a nucleic acid capable of modulating VRN2 expression or FLC expression.